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EXAMINER	
JIANG, CHEN WEN	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 11

Application Number: 09/993,261
Filing Date: November 14, 2001
Appellant(s): FERNANDEZ, ROBERT A.

Alvin S. Blum
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/24/2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

None

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because appellant does not provide separate arguments for the patentability of claim 2.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

4,870,833	MATSUDA et al	10-1989

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al. (U.S. Patent Number 4,870,833).

Matsuda et al. disclose a car air conditioning apparatus and controlling method. Referring to Fig.4, the system comprises an engine 2, a compressor 12, a condenser 14, an evaporator 17, an inverter 11b for regulating a frequency of the power generated by the generator 3 and fed to the compressor 12, and an inverter 11c for regulating a frequency of the power generated by the generator 3 and fed to the condenser blower 13 and the evaporator blower 16. An objective of '833 invention is to provide a car air conditioner capable of securing a steady air conditioning capacity regardless of any fluctuation in speed of an engine or power source. In the prior art, bus or vehicle comprises an open type compressor unit driven directly by the main engine, a condenser connected to the compressor, an expansion valve, an evaporator, a condenser blower, an evaporator blower (col.1, lines 11-19). The speed of the compressor driven by the engine sharply fluctuates likewise as in the case of the main engine (col.1, lines 30-32). Therefore, it would have been obvious to one of ordinary skill in the art to select the claimed

inverter to control the blower speed to ensure constant air circulation to the vehicle cabin. It is noted that the blowers of Matsuda et al. are AC blowers.

(11) Response to Argument

{A} In re page 4, appellant states, that AC motors have lower initial cost and low maintenance with no brushes, and controlling motor speed by frequency control of AC motors is very efficient, compared to speed control of DC motors.

The examiner recognizes the argument made by the appellant. However, AC blowers (condenser blower 13 and evaporator blower 16) have been disclosed in the '833 patent (Figs.1,3,4,6 and 10). Therefore, the argument is moot.

{B} In re pages 4-5, appellant states, the combination taught by Matsuda would be very cost ineffective as well as be opposite teaching. To adopt his teaching of driving the compressor from an AC motor rather than from a simple belt to the engine requires buying a very expensive large and bulky motor. Appellant also argues that the combination of running the '833 system, but with the compressor run off a pulley/belt from the motor would no longer function as '833 intended, since the compressor would no longer run at constant speed regardless of engine speed. Appellant further argues the objectives of the '833 are geared to sealed compressor, integral electric AC motor and to isolate the compressor speed and output from the engine rotation speed.

In response, the examiner asserts that the rejection made in the office action is based on the AC blower disclosed in the '833 and the compressor taught in the prior art (col.1, lines 11-19). In the prior art, bus or vehicle comprises an open type compressor unit driven directly by the main engine (col.1, lines 11-19) and the speed of the compressor driven by the engine sharply fluctuates likewise as in the case of the main engine (col.1, lines 30-32). The examiner

recognizes the objectives of the '833 patent. An objective is to maintain steady compressor speed using inverter vs. fluctuated compressor speed driven by engine. The compressor driven by the engine is disclosed as prior art in '833 and is a same limitation in appellant's claims. Therefore, it would have been obvious to one of ordinary skill in the art to select the AC driven blowers only if the compressor speed fluctuation is not a concern, i.e., the compressor can be driven directly by the engine.

The rejection can also be presented in another rationale by changing the sequence of the rejection. In the prior art, the vehicle comprises an open type compressor unit driven directly by the main engine, a condenser connected to the compressor, an expansion valve, an evaporator, a condenser blower, an evaporator blower (col.1, lines 11-19). The speed of the compressor driven by the engine fluctuates likewise as in the case of the main engine (col.1, lines 30-32). However, prior art does not disclose an inverter and AC powered blowers. Matsuda ('833) discloses an inverter 11c for regulating a frequency of the power and fed to the condenser blower 13 and the evaporator blower 16. Since separate inverters are provided for compressor and blowers (Fig.4), it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of prior art (col.1, line11-19 and col. 1, lines 30-32) with an inverter in view of '833 so as to provide constant AC power for the blowers to provide a constant air stream.

{C} In re page 5, appellant states, no teaching or suggestion is made in '833 that the compressor be driven by the engine so that its speed is determined by the engine speed.

In response to appellant's argument, the examiner asserts that '833 discloses the compressor driven by the engine fluctuates likewise as in the case of the main engine (col.1, lines 30-32).

In conclusion: After a careful consideration, the examiner asserts that the reference and the prior art disclosed in the reference are combinable and provide proper motivation and support the claim limitations. The examiner further asserts that, one skilled in the art, having a compressor directly driven by the engine described in prior art of '833 and the separated inverter used in the Fig.4 of '833, would have no trouble combining the teachings of the references to arrive at the claimed invention.

For the above reasons, it is believed that the rejections should be sustained.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Chen-Wen Jiang CJ
Primary Examiner
August 14, 2003

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